

QIBA Contrast Enhanced Ultrasound (CEUS) Biomarker Committee (BC) Call

Friday, March 12, 2021; 11 AM CST

Call Summary

In attendance

Mike Averkiou, PhD (Co-Chair)	Christian Greis, PhD	Nancy Obuchowski, PhD	RSNA
Richard Barr, MD, PhD (Co-Chair)	Connor Krolak	Michelle Robbin, MD	Joe Koudelik
Todd Erpelding, PhD (Co-Chair)	Reinhard Kubale, MD	Bino Varghese, PhD	
Paul Carson, PhD	Beth McCarville, MD	Stephanie Wilson, MD	
J. Brian Fowlkes, PhD	Andy Milkowski, MS	Heng Zhao, MS, PhD	

Moderator: Dr. Averkiou

Approval of 2.12.2021 call summary

- The last call summary was approved as presented.

Mendeley library discussed:

- Dr. Averkiou announced that the Mendeley library of 68 references had been deleted by accident when his graduate student (owner of the library) left the lab
- Collecting CEUS references will need to begin again
- Dr. Averkiou suggested to re-create the CEUS paper collection in EndNote
 - Connor Krolak offered to help Dr. Averkiou organize his EndNote library
- Dr. Greis is tracking CEUS-related research at Bracco and has shared his list to help restart the effort
 - 250 papers are categorized according to different quality criteria, statistics, organ systems, etc.
 - A subset of 73 papers relate to organ systems, which should be the focus
- Papers addressing longitudinal CEUS liver studies and reproducibility studies to be identified
- 2-3 volunteers needed to review, identify, and present relevant papers on the **April 9th** BC call
 - Connor Krolak volunteered as point-person to identify and present papers based on longitudinal studies (Dr. Barr offered his assistance)
 - Dr. Erpelding volunteered as point-person to identify and present papers based on repeatability studies
 - Dr. Erpelding and Connor Krolak to work offline sharing PDF papers as needed

QIBA Profile – In progress

- Profile title identified as “QIBA Profile: CEUS Quantification”
- Draft Executive Summary and Clinical Context sections were reviewed
 - A unified Clinical Content section was suggested focusing on liver oncology, but also allowing interpretation to extend to other organs in the future
 - Dr. Fowlkes suggested that scanner, software, protocols, curve-fitting, and inter- and intra-readers variability could all support the rationale for clinical context
- Dr. Obuchowski to help with the claim language
- The first version of the Profile will be built on phantom data and it will also describe a standardized protocol
 - WCV based on phantom data could act as a placeholder until clinical data is obtained, helping speculate achievable performance using the Profile

Task Forces:

- Task forces may be revised or expanded based on the Google spreadsheet data where volunteers signed up for specific sections of the Profile writing:

Executive Summary:	Clinical Context:	Claims:	Literature Review:	
Dr. Averkiou	Dr. Barr	Dr. Averkiou	Dr. Barr	Connor Krolak
Dr. Carson	Dr. Sherwin Chan	Dr. Erpelding	Dr. Duncan	Dr. Kubale
Dr. Fowlkes	Dr. Greis	Dr. Obuchowski	Dr. Erpelding	Dr. Long
	Dr. Wilson		Dr. Greis	

- Much of the work of the Literature Review Task Force can be done via email exchanges
- The references provided by Dr. Greis were sent only to the Literature Review Task Force

Next Steps:

- Discussion on the next call will include a review of longitudinal and repeatability study publications
- Determining how to formulate the claim(s) and how to address phantom test-retest variability and deviation from consensus, with possible future correlation with flow in phantoms
- Help is needed with clarifying the claims, as well as clinical context; clinician input is vital

Action items:

- Dr. Averkiou to assign additional BC members to Profile writing task forces per preferences from the [Google form](#)
- CEUS BC SMEs are asked to attend more calls to provide their diverse expertise
- Participation from BC members with experience with the QIBA Profile-writing process is also crucial

The next scheduled QIBA ultrasound calls will be as follows at 11 am CT, unless otherwise noted:

04/09	CEUS BC
-------	---------

RSNA Staff attempt to identify and capture all committee members participating on WebEx calls. However, if multiple callers join simultaneously or call in without logging on to the WebEx, identification is not possible. Call participants are welcome to contact RSNA staff at QIBA@RSNA.org if their attendance is not reflected on the call summaries.

Helpful Resources (QIBA wiki):

- [Profiles](#) | [QIBA Profile template](#) | [How to Write a QIBA Profile](#) | [Claim Guidance](#) | [US Shear Wave Speed Profile](#)
- All Profile Editors are encouraged to join the QIBA Process Committee to learn about QIBA writing tips and processes and network with other Profile Editors to exchange best practices

QIBA Process Committee:

Kevin O'Donnell, MASc (Chair): KODonnell@MRU.MEDICAL.CANON | Michael Boss, PhD (Chair): mboss@acr.org